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Trade Policies and Colombian Development

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Chapter VIII

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The reader who has followed this book so far could expect this last chapter to provide a quantification of the impact of changes in Colombian trade policies on that economy's various development targets in the areas of efficiency, growth, employment, income distribution and dependence. The direction of expected changes in the various magnitudes should not be enough; ideally something should also be said about the likely magnitude of the different effects.

No such scientific and credible quantification will be presented here. Two interrelated types of difficulties stand in the way. As for most countries, no simple positive trade theory appears to explain accurately the evolving Colombian trade structure. An inelegant and qualitative eclectic appeal to elements of positive theories of location, "vent-for-surplus," Heckscher-Ohlin, and the product cycle is the best one can do to explain Colombian trade patterns both with industrialized countries, and with other developing countries, particularly those in Latin America. While these positive theories of trade agree on the misty proposition that liberalized trade policies could and are likely to improve the efficiency (and perhaps growth) of a country without monopoly power in international markets, their predictions regarding income distribution and employment effects of trade liberalization are even mistier, especially when one leaves the world of two goods and two factors.

A fairly disaggregated quantitative model of the Colombian economy, something which as yet does not exist, could simulate responses to trade policy changes. In this chapter, the kind of information one would ideally want will be listed, and available data will be reviewed. Rough orders-of-magnitude estimates will be made whenever possible about possible effects of trade policies.

As it should be clear from earlier chapters, Colombia has been going through a period of trade liberalization since 1967. Thus, before asking about possible effects of further liberalization, a review of major economic trends during 1967 through 1973 will be presented. Then we shall speculate on possible effects of further liberalization on efficiency, growth, income distribution, employment and dependence.

The Record for 1967-1973

Foreign trade statistics, other partial data and national accounts, the latter available only through 1972, show a notable change for the better between 1956-67, and 1967-1973. But as can be seen in Table I-1, a good share in that contrast can be explained by the difference in behavior of the key exogenous variable, the dollar coffee price, which after falling at more than 3 percent per year during 1956 through 1967, rose by more than 6 percent per annum from 1967 through 1972.[1]

Nevertheless, a comparison of trade data for 1948-56 with those for 1967-72 confirms what is known from previous chapters: the improved performance of recent years is not simply due to exogenous factors. The

rise in coffee prices during 1967-72 has been smaller than during 1948-56, while the expansion of registered minor exports has been larger. While in the earlier years the share of minor exports tended to fall, it has continued to rise significantly during 1967-72. Furthermore, contrary to what one expects for magnitudes which start from a small base, the growth rate of minor exports rose between 1956-67 and 1967-72. Undoubtedly, many non-traditional exports benefitted from unusually high world prices, particularly during 1972-73; but in most cases such exports had originally responded to inducements originating in domestic policy, which stimulated a sector which could so benefit.

The growth rate of real GDP has averaged more than 6 percent during 1967 through 1973, a figure somewhat higher than that for 1948 through 1956,[2] and sharply better, especially when viewed in per capita terms, than the average 4.6 percent registered for 1956 through 1967. All major GDP components listed in Table I-2 show increases in their growth rate between 1956-67 and 1967-72, and all stand above their respective averages for the whole 1950 through 1972 period. At least for the level of aggregation shown, it does not appear that the higher post-1967 growth is due to pulling resources <u>out</u> of least productive (measured) activities and putting them into more productive ones; the growth profile thus has a "vent-for-surplus" flavor.[3] It may also be observed that the post-1967 expansion has a more balanced profile than that for 1950 through 1956. Note especially the lower growth rate for construction and the higher one for primary production.

One way to investigate whether a significant change in the pattern of Colombian growth has occurred since 1967 is to examine how well average growth rates for the postwar period fit post-1967 experience. This has been done for the output of major activities in agriculture, livestock and manufacturing, as given in the national accounts, available from 1950 through 1972. Each of the output indices [y] for those activities has been fitted with the following regression:

$$\log y = a + bt_1 + ct_2$$

As before, t_1 denotes a time trend variable going from 1 (for 1950) through 23 (for 1972). The variable t_2 takes values of zero for 1950 through 1966, and values of 18, 19, ..., 22, 23 for the six years included in 1967 through 1972. The b coefficient will then yield the average growth rate for the whole period; the c coefficient will give variations during 1967-72 from such an average. In what follows, when the c coefficient is twice or more its standard error, it will be deemed "significant," which of course does not imply it is larger. The positive or negative deviations can be due to a variety of causes, including policy changes not directly related to the trade and payments system (and changes in the coverage of national accounts data!). It could also be argued that lack of a significant deviation from trend may result from conflicting influences cancelling each other out. But not having a complete model of the Colombian economy, an obvious first step seems to be examining the clearest departures from trend, speculating later as to their meaning.

The results from this exercise are presented in Tables VIII-1 and VIII-2. As noted earlier, recent years have witnessed a slight pick up in the mediocre growth rate for agriculture and livestock. Table VIII-1 shows that significantly positive (although not necessarily large) 1967-72 deviations from trend appear in garlic and onions, rice, potatoes, plaintains, mandioc, horses (!), and "other," both in agriculture and livestock. In the Colombian context this group may be characterized as involving predominantly non-tradeable goods. Major export crops, outside coffee, such as cotton, bananas, cocoa, sugarcane and tobacco, as well as bovine cattle fail to show significant accelerations in their growth rates during 1967-72. But note, particularly for cotton, sugarcane, and bovine cattle that trend growth rates are impressive ones. On the whole, it would be difficult to attribute the pick up in the agriculture and livestock growth rate after 1967 to <u>further</u> stimuli arising from the trade policies followed since that year. At best it could be argued that those policies helped sustain continued diversification away from coffee and impressive growth rates in several export-oriented activities, which otherwise may have witnessed slowdowns in performance, as in the case of some oilseeds which had been oriented primarily toward import-substitution. Preliminary data for 1973 show that output growth for the whole of agriculture and livestock has remained somewhat above the whole postwar trend. But no sharp break in trend is apparent.

The manufacturing pattern, presented in Table VIII-2, is even more difficult to characterize simply. First of all, while Table I-2 showed

TABLE VIII-1

Agriculture and Livestock: Average Annual Growth Rates of Output for 1950 through 1972, and Growth Rate Deviations During 1967 through 1972

(Standard errors in parentheses)

	Trend growth rate 1950 through 1972	Deviation from trend during 1967 through 1972
All agriculture	2.98	0.24
	(0.18)	(0.13)
Sesame	13.25	-3.57*
	(1.91)	(1.40)
Garlic and Onions	2.57	2.68*
	(1.21)	(0.89)
Cotton	14.64	-1.76
	(1.51)	(1.11)
Rice	4.77	0.73*
	(0.29)	(0.21)
Bananas for export	1.98	0.69
	(1.03)	(0.75)
Cocoa	4.25	-0.16
	(0.28)	(0.21)
Coffee	2.20	-0.81*
	(0.31)	(0.23)
Sugarcane	6.00	0.41
	(0.40)	(0.30)
Rubber	5.03	1.43
	(1.28)	(0.94)
Barley	4.59	-1.80*
	(0.91)	(0.67)
Copra[a]	11.42	-1.81
	(2.29)	(1.72)
Beans	-1.48	1.53
	(1.17)	(0.85)
Corn	0.66	-0.19
	(0.47)	(0.35)
Potatoes	2.66	1.38*
	(0.78)	(0.57)
Plantains	2.82	0.65*
	(0.14)	(0.10)
Tobacco	4.31	-1.25*
	(0.73)	(0.54)
Wheat	-0.67	-2.46*
	(1.02)	(0.75)
Mandioc	0.02	4.14*
	(0.43)	(0.31)
Panela (unrefined brown sugar)	5.65	-0.38
	(0.43)	(0.32)
Other agriculture	2.85	1.01*
	(0.19)	(0.14)

Table VIII-1
(continued)

	Trend growth rate 1950 through 1972	Deviation from trend during 1967 through 1972
All Livestock	3.68	0.18
	(0.25)	(0.18)
Bovine beef cattle	4.42	-0.15
	(0.56)	(0.41)
Pigs	5.05	-0.27
	(1.10)	(0.81)
Sheep	2.44	-1.22
	(1.36)	(1.00)
Goats	2.08	0.55
	(1.51)	(1.11)
Horses	0.87	0.90*
	(0.46)	(0.34)
Other livestock products	3.55	0.49*
	(0.23)	(0.17)

[a]Refers only to 1950 or 1967 through 1971.

* Indicates that the coefficient for the deviation from trend is twice or more of its standard error. Both trend and deviation are expressed as annual percentages.

Sources and method: Basic data obtained from the Colombian National Accounts (BdlR).

Table VIII-2

Manufacturing: Average Annual Growth Rates of Output for 1950 through 1972, and Growth Rate Deviations during 1967 through 1972

(Standard Errors in Parentheses)

	Trend growth rate 1950 through 1972	Deviation from trend during 1967 through 1972
All Manufacturing	6.23	-0.12
	(0.12)	(0.09)
--Industrial Manufacturing	7.03	-0.23*
	(0.15)	(0.11)
--Small Scale Industry and handicrafts	3.26	0.09*
	(0.03)	(0.02)
Food Processing	5.98	0.89*
	(0.27)	(0.20)
Beverages	4.57	0.21
	(0.26)	(0.19)
Tobacco Processing	3.12	0.92*
	(0.25)	(0.19)
Textiles	6.66	-0.63*
	(0.35)	(0.26)
Shoes and clothing	8.28	-0.15
	(0.20)	(0.15)
Wood products and furniture	4.80	-1.10*
	(0.52)	(0.38)
Paper products	10.94	0.39
	(0.32)	(0.23)
Printing and publishing	7.95	-0.65
	(0.48)	(0.35)
Leather processing	4.46	0.03
	(0.29)	(0.21)
Rubber products	8.72	-1.40*
	(0.68)	(0.50)
Chemical products	8.33	-0.70*
	(0.30)	(0.22)
Petroleum and coal derivatives	9.57	-1.03*
	(0.48)	(0.35)
Non-metallic mineral products	6.32	-0.58*
	(0.34)	(0.25)
Basic metal products	20.78	-5.67*
	(2.38)	(1.74)
Mechanical and metallurgical products	14.65	-2.60*
	(0.43)	(0.32)

*Indicates that the coefficient for the deviation from trend is twice or more its standard error. Both trend and deviation are expressed as annual percentages.

Sources and method: Basic data obtained as in Table VIII-1.

an increase in the manufacturing growth rate for 1967 through 1972, in contrast with that for the whole period, Table VIII-2 shows a slowdown in the 1967-72 growth rate for "modern" manufacturing. The sensitivity of the results to the use of the depressed 1967 as base year (as well as to the relatively slow recovery in 1968) suggests that no great weight can be attached to the apparent trend change. Furthermore, preliminary data for 1973 indicate above average manufacturing growth rates. On the whole, it is doubtful that when longer time series become available, one will be able to establish a significant break in the manufacturing growth rate around 1967, using the technique of Table VIII-2.

That table also shows a complete pattern of acceleration and deceleration in growth rates for "modern" manufacturing branches. Significant declines appear for eight branches, significant increases for three, and no significant changes show up in five branches. Among the eight activities with declining growth rates, one finds several associated with strong import substituting efforts, such as chemicals and basic metals, but also branches like textiles, wood products and furniture, increasingly linked to manufactured exports. The three manufacturing activities with significant acceleration in their growth rates during 1967-72 are also a mixed bag: small scale industry and handicrafts, food processing and tobacco processing. The three sell overwhelmingly to the domestic market, but presumably have sharply different requirements for unskilled and skilled labor and capital. Table VIII-3 provides some indirect information on the latter point; unfortunately, the categories in Tables VIII-2 and VIII-3 are not exactly alike, and neither source provides information on recent shares of output exported.

Table VIII-3

Ranking of Colombian Manufacturing Activities According to Value Added per Employed Person in 1967

(Shares in Percentages)

		Value Added Per Person (Thousand 1967 Pesos)	Share of Total Value Added	Share of Total Employment	Column (b) Minus Column (c)	Share of Imports in Domestic Market	Share of Exports in Domestic Production
1.	Petroleum and coal products	277.7	3.7	0.7	3.0	8.4	14.9
2.	Tobacco products	185.0	4.0	1.2	2.8	0.2	nil
3.	Beverages	135.9	13.5	5.4	8.1	0.7	nil
4.	Chemicals other than pharmaceuticals	87.3	5.6	3.5	2.1	36.5	2.2
5.	Pharmaceuticals and related products	87.2	7.7	4.8	2.9	9.3	1.2
6.	Basic metal products	68.7	2.1	1.7	0.4	31.5	0.8
7.	Paper products	64.4	2.5	2.2	0.3	25.9	11.9
8.	Food processing	59.8	15.9	14.4	1.5	0.4	nil
9.	Rubber products	56.4	2.5	2.4	0.1	4.5	3.3
10.	Electrical machinery, except appliances	54.5	2.2	2.2	0	43.6	1.2
11.	Electrical appliances	49.2	1.0	1.1	-0.1	2.0	nil
12.	Other manufacturing	44.2	2.7	3.3	-0.6	19.6	1.3
13.	Textiles	43.4	13.0	16.3	-3.3	2.3	2.5
14.	Printing and publishing	41.7	3.1	4.0	-0.9	7.7	1.2
15.	Leather and products	41.2	1.1	1.4	-0.3	nil	9.0
16.	Non-metallic mineral products	38.1	5.0	7.1	-2.1	3.6	6.0
17.	Metal products	36.1	4.4	6.6	-2.2	10.5	1.9
18.	Motor vehicles	36.0	1.9	2.9	-1.0	37.0	0.5
19.	Mechanical machinery	32.0	1.2	2.0	-0.8	87.0	13.7
20.	Non-electrical appliances	26.6	0.2	0.3	-0.1	nil	nil
21.	Wood and products	25.1	1.0	2.1	-1.1	1.3	15.4
22.	Clothing and footwear	23.9	4.2	9.5	-5.3	1.2	0.4
23.	Ceramic products	21.7	0.5	1.3	-0.8	7.5	5.6
24.	Furnitures and fixtures	19.8	0.6	1.7	-1.1	1.2	1.1
25.	Transport equipment, except motor vehicles	19.8	0.7	1.9	-1.2	80.2	nil
	ALL MANUFACTURING	54.4	100	100	0	15.8	2.3

Sources and Method: Basic data obtained from DANE unpublished estimates, as produced by IBRD unpublished documents. (See World Bank, Economic Growth of Colombia: Problems and Prospects, Baltimore and London, The John Hopkins University Press, 1972, pp. 490-91.) "Domestic market" was defined as domestic production plus imports less exports. It may be noted that the definition of manufactured exports excludes slightly processed foodstuffs, such as sugar. The IBRD report estimates "manufactured exports" at $55.6 Million in 1967.

Nevertheless, from the first column in Table VIII-3 it may be assumed that activities like tobacco and food processing have requirements for human and physical capital per unit of output which exceeded the manufacturing average.

On the whole, it is difficult to detect a powerful and unambiguous impact of post-1967 trade policies on the 1967-72 growth pattern of rural and manufacturing activities. But besides the problem of untangling the influence of new trade policies from those of other policies and variables, the 1967-72 period is perhaps too short to allow for structural changes. During 1967-72, for example, the performance of individual manufacturing activities was in many cases more influenced by the long-run import-substitution cycle than by the new export promotion policies, but such a situation, which can be noted in the residuals of several of the trend regressions, could change in the future.

Application of the technique used in Table VIII-1 and VIII-2 to the more aggregated national accounts indicates significant post-1967 acceleration in growth rates only for primary production (in spite of deceleration in mining, mainly petroleum), construction and what Table I-2 called Type-II services. Construction and services, of course, have a very small degree of "tradeability." Thus viewed, the post-1967 acceleration in the growth rate of GDP could hardly be said to rest on a reallocation of resources, neither absolute nor relative, from non-tradeable goods and services toward tradeable ones.

Available data on 1967-73 changes in income distribution, employment and degree of foreign ownership and control are weaker than reviewed output indices. In spite of this limitation, the rest of the chapter will attempt to answer the question: what can we expect, viewing the matter during 1974, from further Colombian trade and exchange liberalization? This will involve reviewing (and some guessing) as to what has actually been happening to key variables during 1967-73. Guessing will also be necessary regarding the future trend of world prices for Colombian staples. If coffee, cotton, sugar, etc., were to keep their world prices reached during 1973, and so did all other tradeables, the case for further real effective peso devaluations would become quite doubtful, and the ideal liberalization policy (as well as its urgency) would be different from that which would result from expecting a 1956-57-style collapse of coffee (and other staples) prices.

Evidence on the Static Efficiency Effects of Colombian Trade Policies: Review and Outlook

Colombian postwar trade and exchange policies have induced static inefficiencies in the sense that some of the foreign exchange saved by import substitution could have been obtained cheaper, i.e., at lower domestic resource costs, by using in export activities Colombian resources which have low opportunity costs, primarily natural resources of various kinds, and to a lesser extent, unskilled labor. This formulation does not imply that resources unused by those export activities which "could have been," or which could have developed much earlier than they in fact did, found their

way to the import substituting sector. In the Colombian case it is more accurate to regard a good share of those low opportunity cost resources remaining untapped, as with natural resources, as blending into a murky non-tradeable or "informal" sector. The blocking effect of trade and exchange policies in the "vent for surplus" process will be discussed in the next section, on the assumption that foreign non-preferential demand for many actual and potential non-traditional Colombian exports is high. Such a key assumption is also made in this section, which will focus on prima facie evidence of static inefficiencies.

Earlier chapters have provided documentation for the assumption that during the postwar period Colombia could be said to have faced highly price-elastic world demand for actual and potential non-traditional exports. Such a statement is of course easier to make ex-post than ex-ante. The process of finding new foreign markets is much more complex than implied by the small country assumption, and it is surrounded by considerable uncertainty both for individual export products, and for the whole export drive. Nevertheless, on balance it appears that excessive elasticity-pessimism dominated Colombian policy, on the average, during the postwar.

As a result, postwar public policy offered, on balance, greater encouragement to import substitution than to exporting activities. Detailed studies on the exact incidence of such incentives are few, and available only for the more recent years. The most complete of them has been carried out by Thomas L. Hutcheson,[4] who calculated, using various assumptions and methodologies, effective rates of protection in 1969 for several manufacturing and

primary activities. This valuable study relied on comparisons between Colombian and foreign prices for its calculations; his data came predominantly from Colombian producers comparing their domestic price with their export price.[5]

Some of Hutcheson's major results are presented in Table VIII-4; his calculations of effective rates of protection include an estimate of the percent devaluation which would be required to maintain external balance if the protective structure were removed. Only one such estimate (34 percent devaluation) is presented in Table VIII-4. The theoretical and empirical difficulties in all of these calculations are well known; nevertheless, a major robust conclusion emerges from Hutcheson's results, showing the large variance in the protection received by different sectors in 1969. The generalization that, on average, manufacturing is protected while primary production is not, can be supplemented with the generalization that such a pattern fluctuates considerably from branch to branch. Indeed, if comparable data were available, they would almost certainly show that net protection also varies sharply according to size of firm, or farm.

Tariffs, import controls, export subsidies and exchange rates are only part of the state's arsenal of policy instruments. Tax and credit incentives, or direct official participation, can be of greater importance for some projects. Furthermore, the exact incidence of the whole array of policy instruments can change from year to year, depending on such things as the actual and expected relative price structure being signaled to Colombia from world markets in a given year. Nevertheless, Hutcheson provides evidence indicating that his measures of effective protection are significantly and positively

Table VIII-4

Effective Rates of Protection by Groups of Traded Sectors, 1969

(percent)

	Balassa Method, with a 34 percent exchange rate adjustment	Corden Method
Coffee	-45	-45
Mining	- 8	- 6
Sugar	-23	-19
Primary, except coffee and mining	0	1
Food products, except sugar	2	11
Beverages	121	103
Tobacco	95	84
Textiles	5	8
Shoes	-22	-10
Clothing	4	13
Wood products	-11	1
Furniture	-25	-11
Paper products	12	14
Leather products	11	16
Rubber products	-31	-26
Chemical products	61	56
Refinery products	- 5	4
Non-Metallic mineral products	- 8	0
Basic metals	151	39
Metal manufacture	47	43
Non-Electrical machinery	- 7	12
Electrical apparatus	*	668
Transport equipment	610	319
Diverse industries	117	89
All manufacturing	44	29
All manufacturing, except tobacco and beverages	40	25
All manufacturing, except sugar	50	33
Primary exports, except coffee and mining	18	18
Manufactured exports, except sugar	21	21

*Negative value added.

Sources and method: Adapted from Table 3.5, p. 68, in Thomas L. Hutcheson, "Incentives for Industrialization in Colombia," Ph.D. dissertation, Department of Economics, University of Michigan, 1973.

related to growth rates of different branches in the manufacturing sector. He concludes that protection, particularly as measured by the Balassa method, made a difference in the pattern of growth within manufacturing. He argues that the structure of protection has contributed to slow economic growth and increasing unemployment. Proposing a policy of uniform protection, he expects that there would be much reshuffling within each sector as specialization occurred, but few cases of outright disappearance of sectors.

Comparison of a few new export activities with some import-substituting industries, as they stood around 1971, also yielded large gaps in the domestic resource costs between the two groups, of the order of two-to-one. While, for example, exporters of carnations and some leather products had domestic resource costs of 18 and 17 pesos per dollar obtained, respectively, a firm producing specialized textile products and benefiting from prohibitions against competition from imports had domestic resource costs of 36 pesos per dollar.[6] These examples have a useful pedagogical purpose, but more needs to be said about the prevalence of both extremes within the Colombian sectors producing tradeable commodities.

The extraordinary expansion of non-traditional exports during 1967-74, although aided by favorable world economic conditions, has shown the large number of varied Colombian activities which (in all likelihood with few exceptions) have domestic resource costs no higher than about the exchange rate plus the CAT. By 1973, minor exports had reached between 5 and 6 percent of GNP. Given an annual growth rate in the dollar value of those exports of about 15 percent, it is difficult to imagine scenarios for which the minor export share in GNP could be much higher than that achieved.

At the other extreme, the manufacturing activities found by Hutcheson to have the most offensive effective rates of protection, say 40 percent and above, account for about one third of value added in manufacturing (at domestic prices), or between 6 and 7 percent of GNP. A more precise identification of the "horror stories" of import substitution can be given. Prime candidates include: the automobile industry, which received impetus during the late 1960s; petrochemicals and some chemicals, particularly pharmaceuticals; electrical appliances, such as refrigerators and washing machines; artificial fibers; and some alcoholic beverages (whiskey). Thus isolated, such sectors represent less than a third of manufacturing value added, and what becomes remarkable is how much of Colombian manufacturing operates around world prices.

On the other hand, as emphasized by Francisco Thoumi, the share of manufacturing investment captured during the last fifteen years by the "horror stories" is an impressive one. It is estimated that between 1962 and 1967, gross investments in petroleum derivatives, including petrochemicals, amounted to one fourth of all manufacturing investment.[7] David Morawitz reports that over 100 million dollars were invested in petrochemicals in Colombia in the 1960s, and another 120 million dollars in scheduled to be invested during the 1970s.[8] Such projects have also taken up an important share of the limited pool of highly skilled professionals and workers. One should note that sensible cost- and employment-conscious criticisms of petrochemical investments have been made to look less than farsighted by the eccentric signals forthcoming from world markets during 1973-74. Substantial direct and indirect commitments to the automobile industry have not yet found

a redeeming historical accident.[9] It may be added that the participation of direct foreign investment in many of the "horror stories," such as automobiles, pharmaceuticals and artificial fibers, is large. The horror in those stories involves not just high real costs due to low production runs, unsuitable factor combinations and other standard reasons, but also untaxed quasi-rents or excess profits earned by foreigners, and made possible by the protection system. Whether on its own or in partnership with foreign or local investors, the public Institute of Industrial Development (IFI, using its Spanish initials), has also involved its long-term credit facilities into several ill-starred import substitution schemes, including "Forjas de Colombia," making foundry products and rolling equipment and "COLCARRIL," producing railraod wagons. IFI participated with Renault in the expansion of the automotive industry, and with public Venezuelan capital in the creation of a large plant for producing caproiactam, a sophisticated petrochemical (Monómeros Colombo-Venezolanos).

The gradual lifting of import restrictions which has taken place since 1967, and which appears to be accelerating during 1973-74 under the pressure of bulging foreign exchange reserves and extraordinary domestic inflation, has probably removed static inefficiencies involved in excessive precautionary, as well as speculative, holdings of inventories of importable goods.[10] Such inventories usually involve spare parts, intermediate products and raw materials, but could also include installed but unused imported machinery and equipment.

A strong <u>a priori</u> case can be and has been made linking LDC import licensing policies and generalized excess capacity in industry. But in

Colombia such a link appears weak. The major research done on the utilization of fixed industrial capital in Colombia concludes,[11] first of all, that capacity utilization for recent years is relatively high compared with the few other countries for which there is information. The hours of capacity use are related to long-run structural variables, including management quality, which are influenced by trade policy only indirectly. Stop-go cycles related to the foreign exchange bottleneck have influenced capacity utilization, particularly during 1956 through 1967, and excess capacity in the "horror stories" of import substitution can also be found, but no strong general link appears to exist between import licensing as practiced in Colombia and excess capacity.

While some major import substitution projects, whose efficiency was far from obvious, were launched after 1967 (as in the case of automobiles and some petrochemicals), the most recent years have witnessed growing public sector reluctance to support similar schemes. Remember that such attitudes will not only be reflected in the tariff and the management of import controls, but also, and often mainly, in the promises made or withheld regarding credit, taxes and long term public support. This new ambiance in public development offices, including IFI and other public credit agencies, has perhaps been more important for what it has kept from happening, than for any tangible achievements.

If extravagant and massive new ventures into import substitution appear on the decline, it remains true that the import control mechanism is still vigorously used for protecting existing (and some new) activities, beyond the

usually moderate tariff levels. Even with foreign exchange reserves reaching $600 million during the first quarter of 1974, import controls remained more restrictive than during 1966 (pre-November). The biases described in Chapter VI remain, and under present and expected circumstances, it is difficult to make a good economic case for import controls as presently administered. Circumstances seem quite favorable for their retention only for special cases involving health hazards, threats to public safety, etc., for which tariffs may be insufficient. Elimination of most import controls should bring about modest gains in efficiency, and probably improve access to imports for medium and small businessmen, as well as those outside Bogotá and Medellín. An announcement of the decision to gradually eliminate them, accompanied by measures to be discussed below, should signal an even firmer government commitment to expanding the export sector.

The maintenance of some forms of exchange control, however, looks necessary, less for balance of payments reasons than to execute other Colombian policies, such as vigilance over some kinds of capital inflows, particularly direct foreign investment. Standby exchange controls may not be a bad idea, anyway, for balance of payments reasons, in a country like Colombia, still vulnerable to unexpected changes in a far from stable world economy, and not so rich in policy tools that it can afford to throw away one still widely used in industrialized countries.

By signing the Cartagena Agreement creating the Andean Common Market, Colombia committed herself to a gradual loss of purely national control over her tariffs. A common external Andean tariff is to be agreed upon by

1975, and should be fully implemented by 1980.[12] The common minimum external tariff agreed upon in December 1970, and toward which Colombia is already moving, was not very different from the Colombian starting point, and could be described on the whole as lower and less varied than prior national tariffs. The hope has been expressed that the eventual common external tariff will be no higher, on average, than the minimum one, whose average is about 50 percent. The outlook is not clear, but Colombia has been reported to oppose higher duties.

Ad hoc industrial complementation agreements among Andean countries, for which special protection would be granted, could also involve Colombia in transandean import substitution schemes, some of which could rationalize existing and mostly inefficient industries (e.g., steel), but not all of which could be desirable from an efficiency viewpoint. Progress has been slow in the negotiation of such agreements, which involve laborious and detailed parcelling out of plants among countries. It is also reported that Colombia is on guard against the gestation, under these agreements, of white elephants of Andean dimensions.

It may be noted that the elimination of tariffs and controls over most intra-Andean commodity flows, which should be completed for inflows into Colombia also by 1980, should generate non-trivial efficiency gains and exert a salutary competitive pressure on industry. Contrary to a widespread misconception, there is much room for trade creation within the Andean group (a point discussed in the papers listed in footnote 12).

If import controls are eliminated over all trade, and purely Colombian management of import tariffs disappears, exchange rate policy will loom

even more important to keep possible balance of payments pressures from leading to inefficient trade policies. The point is reinforced by growing recognition of the advisability of revamping the system of export subsidies. As discussed in Chapter II, the CAT scheme has contributed to the expansion of minor exports, but as already noted it shows technical faults generating some inefficiencies, and is becoming increasingly expensive in terms of foregone badly needed tax revenues. Its gradual elimination, compensated by a faster upward crawl in the exchange rate, could leave exporters, on the average, no worse off than now, while providing more uniform incentives and larger tax revenues.[13] Elimination of import controls, discussed above, could help to offset the upward pressures on the domestic prices of importable goods which such measures would imply, although available information makes it difficult to be precise on this point, a further reason to handle the whole package in gradual steps (and once the inflationary pressures existing during the first half of 1974 are under control). It may be noted that the gradual elimination of both import controls and export subsidies may reduce frictions and quarrels both with trade partners in the Andean region and elsewhere.[14]

Since the crawling peg system was adopted in 1967, most observers sympathetic to import liberalization have felt that the crawl was too slow, citing as ultimate proof the continued need of licensing to repress imports, and CAT to stimulate minor exports. High and rising foreign exchange reserves during 1973/74 suggest that the degree of peso overvaluation may have been substantially reduced, and some may even question whether over-

valuation exists. But 1973/74 show the complications of overvaluation calculations: much hinges on what one assumes about the future of coffee and other commodity prices, as well as detailed elasticities in Colombian trade with different geographical areas. The latter is necessary, as the peso followed the U.S. dollar after August 1971, and devalued with respect to non-dollar key currencies. Sustained inflation in industrialized countries, of a type which may not be accurately reflected in price indices, add to the difficulties of putting much confidence on calculations such as those presented in Chapters 2 and 4. One has to fall back to observing the trend in foreign exchange reserves as import controls and CAT are gradually removed, to be sure as to the degree of present and future overvaluation. It also remains to be seen whether the crawling peg will be as successful under accelerating inflation as it was while Colombian inflation was reduced in the context of a relatively stable world price level.

Adoption of the policy package described above would complete the trend started in 1967, and put Colombia fully into the Bhagwati-Krueger Phase V. The impact of such a step on GNP growth, say over the ten years after it, is again difficult to quantify. Note that now we are not taking as a base of comparison a situation characterized by rigid import controls and stop-go cycles, such as that characterizing most of 1956-67, together with an outlook of further massive import substitution.[15] The question is how much additional efficiency and growth would result from the suggested step. For reasons to be developed in the next section, it appears that the major gains to be reaped from post-1967 policies have been already captured,

and further gains are unlikely to amount to more than a fraction of one percent per year in the GNP growth rate. Indeed, given the conventions and practice of national accounting, some of the gains may not even be reflected in GNP. Switching a civil servant with a given salary from reviewing license applications to rural teaching will not affect GNP, at least for a long time. Psychic gains and losses in dealing with, or wielding, bureaucratic power go unrecorded. And so on. But even taking into account possible unrecorded net gains, one should not expect the elimination of import controls to revolutionize either the efficiency or the style of the Colombian economic system.

Trade Policies, Foreign Exchange Availability and Growth

Earlier chapters have emphasized how balance of payments difficulties hampered Colombian growth, particularly during 1956 through 1967. As shown in Table VIII-5, gross investment in machinery and equipment, and associated technological change, still rely heavily on imports. During the late 1950s the new steel mill in Paz del Río put a dent in the imported share; the impact of the start of automotive production can also be detected in 1971-72. Throughout, less dramatic and probably more efficient metal-mechanic industries have also helped to expand the share of domestically produced machinery and equipment.

After the collapse of dollar coffee prices in the late 1950s, the constant-price share of GNP devoted to gross investment in machinery and equipment fell from an average of 12.6 percent during 1950 through 1956, to

Table VIII-5

Share of Imports in Gross Investment in Machinery and Equipment, including Transport
(Percentages; original magnitudes at constant 1958 prices)

1950-54	93.7
1955-56	93.6
1957-58	84.8
1959-62	82.7
1963-66	76.2
1967-70	73.4
1971-72	67.8

Sources and method: National Accounts, BdlR.

7.7 percent during 1957 through 1969. Only during 1970 through 1972 has that share risen in a sustained but unspectacular manner to an average of 8.3 percent of GNP. While no detailed data are available on investment allocation, it is known that the 1950s witnessed considerable investment in social overhead capital and other projects quite intensive in imported machinery and equipment; examples include the already-mentioned steel mill and the Atlantic railroad. Thus, the drop in the GNP share devoted to gross investment in machinery and equipment reflects exogenous changes in investment allocation as well as balance of payments stringency.

It may be seen in Table VIII-6 that investment in construction, while showing considerable year-to-year fluctuations smoothed in the table, behaved more stably than machinery and equipment capital formation; its direct and indirect import component is much lower than that of the latter category. Note that all percentages presented in Table VIII-6 have been computed from data expressed at constant 1958 prices. It is instructive to compare these numbers with those in Table VIII-7, showing capital formation and its financing also as GNP shares, but with magnitudes originally in current prices. While Table VIII-6 shows 1950-56 investment ratios exceeding those coming later, Table VIII-7 shows the opposite.

At an accounting level, the discrepancy is mostly explained by the evolution of the implicit prices of machinery and transport equipment, relative to the GNP deflator. As shown in Table VIII-8, a remarkable rise in the relative prices of those capital goods occurred after 1955-56; given Colombian dependence on imports of those goods, such a rise can be traced

Table VIII-6

Gross Capital Formation, 1950-72
(Percentages of GNP at market prices;
original magnitudes at constant 1958 prices)

	Gross Capital Formation	Buildings, other Construction and Improvements	Machinery and other Equipment	Net Change in Inventories
1950-54	22.3	9.3	12.0	1.1
1955-56	25.7	10.9	14.2	0.6
1957-58	20.8	10.0	7.1	3.7
1959-62	20.2	9.8	8.3	2.1
1963-66	19.2	8.6	7.8	2.8
1967-70	19.3	10.3	7.3	1.6
1971-72	20.7	10.1	8.3	2.4

Source and method: As in Table VIII-5.

Table VIII-7

Financing of Gross Capital Formation, 1950-72
(Percentages of GNP at market prices;
original magnitudes at current prices)

	Gross Capital Formation	Private Savings	Public Savings	Net Capital Inflow
1950-54	16.1	11.9	4.1	—
1955-56	18.2	12.0	4.5	1.7
1957-58	19.6	15.7	4.6	-0.7
1959-62	19.9	14.9	3.8	1.2
1963-66	18.8	12.6	3.4	2.8
1967-70	20.9	12.0	6.1	2.8
1971-72	22.1	12.4	5.1	4.6

Sources and method: As in Table VIII-5.

Table VIII-8

Implicit Price Deflators for Gross Investment, 1950-72
(Divided over implicit price deflator for GNP at market prices; 1958=100)

	Buildings, other Construction and Improvements	Transport Equipment	Machinery and other Equipment	Imported Machinery and Equipment
1950-54	97.9	54.7	49.8	47.7
1955-56	96.0	51.8	50.3	48.1
1957-58	97.3	87.4	85.7	84.2
1959-62	110.8	81.9	89.7	85.0
1963-66	118.2	76.2	84.5	80.1
1967-70	117.0	92.6	101.2	101.6
1971-72	117.0	99.8	99.1	106.0

Sources and method: As in Table VIII-5.

back to a similar increase in the real import exchange rate, as can be seen comparing the last column of Table VIII-8 and Table IV-8.[16] After peaking in 1958, both relative prices fell, until new devaluations and the crawling peg raised them back to around 1958 levels during the late 1960s and early 1970s.

The economic explanation for the sharp rise in the relative prices of machinery and equipment during 1957 and 1958, and their high levels thereafter, was the deterioration in the balance of payments first triggered by the collapse of dollar coffee prices. Such worsening of Colombian terms of trade meant a loss in the effectiveness of the mechanism through which the country transformed its savings into tangible machinery and equipment. Coffee, at that time the indirect but major provider of non-construction capital goods, suffered an exogenous drop in dollar prices, equivalent to a productivity loss in raising the relative prices of machinery and equipment. A similar phenomenon has been recorded for another Latin American country, but for an earlier period.[17] An increase in the real exchange rate for imports as well as for non-traditional exports may thus be viewed as a way to offset the decline in efficiency of the traditional indirect way of obtaining machinery and equipment, by rationing available foreign exchange more stringently, in the short run, and by encouraging new direct and indirect sources of machinery and equipment, in the long run.

While the real evolution of capital formation is best measured at constant prices, the burdens involved in achieving a given savings rate should

be measured at current prices, as in Table VIII-7. In an aggregate, ex-post sense, it can be seen that the demand for all investment goods was shown to be inelastic by the post-1956 increase in relative prices;[18] a larger share of GNP was saved domestically (except during 1963-66) after the rise in capital goods relative prices than during 1950-56. The paradoxical increase in national savings at a time of severe balance of payments and growth crisis during 1957-58 is astonishing. It is noteworthy that national savings during the prosperous years of 1971-72 stood at 17.5 percent of GNP, substantially below the 20.3 percent rate achieved during the "blood, sweat and tears" years of 1957 and 1958. Contrasting all of 1967 through 1972 with 1950 through 1956, the saving rates and capital inflow emerge as follows:

	1950-56	1967-72
Private savings	12.0%	12.1%
Public savings	4.2	5.8
Net capital inflow	0.4	3.4
Gross capital formation	16.7%	21.3%

Increases in the rates of public saving and capital inflow account for about all of the increase in the current-prices rate of capital accumulation.

Even allowing for possible changes in the structure of investment allocation, it would be difficult to credit the 1967-72 acceleration in GNP growth on a higher rate of capital formation. Assuming a one-year average gestation period for investments, and comparing constant-price rates of

gross capital formation with GNP growth rates, one obtains the following marginal capital-output ratios (MCORs):

1951 through 1955: 4.08

1956 through 1967: 4.81

1968 through 1972: 3.22

The sharp drop in MCORs between 1956-67 and 1968-72 contrasts with the more sluggish evolution of the aggregate investment rate, as follows:

1950 through 1954: 22.3%

1955 through 1966: 20.9

1967 through 1971: 19.7

One may speculate as to sources for the low MCOR during 1968-72. Earlier years had witnessed not only severe import restrictions on imports of capital goods, but also erratic stop-go fiscal and monetary policies, with expansionary binges being followed by restrictive policies. Austerity in fiscal and monetary matters, when applied, did help the balance of payments, but at the cost of slowing GNP expansion, and generating excess capacity even in sectors whose direct and indirect demand for imported inputs was small. Excess capacity during 1956 through 1967 was due not so much to a lack of key imported inputs paralyzing whole factories, but to fiscal and monetary policies which could not afford to be <u>steadily</u> expansionary for fear, a well-founded fear, of leading to balance of payments problems. Selective measures allowing differential expansion depending on import-intensity were difficult to implement beyond gross aggregation levels.

As the balance of payments situation improved after 1967 and supported by the crawling peg, fiscal and monetary policy could avoid the violence

of previous stop-go spasms. But by 1972-74, further encouraged by booming world demand, macro policies may have become overly expansionary, in the sense that they could not be sustained. At any rate, since 1967 excess capacity was steadily put to use, whether or not it relied on imported inputs. Thus, new exports at one end tapped resources which had been less than fully used before, in a "vent-for-surplus" fashion, while expansive aggregate domestic demand had a similar effect on all non-exporting activities. Without the rising foreign exchange earnings,[19] however, such a scenario would not have been possible. In other words, given the exogenous dollar coffee price, the implicit 1956-67 "plan" was internally inconsistent, although containing static inefficiencies, such as a GNP growth rate of, say, six percent per annum requiring higher foreign exchange earnings, which could not be replaced by import-substitution policies, given Colombian parameters.

The higher and steadier post-1967 growth must have encouraged an investment process more efficient than that undertaken under the stop-go gyrations of earlier years. How much this contributed to lowering the MCOR, however, is a moot point.

It is likely that to sustain the GNP growth rates registered since 1967, the constant-price investment coefficient, particularly that in machinery and equipment, will have to continue, and at a faster rate, its upward climb. The long run benefit of breaking the foreign exchange bottleneck, i.e., allowing a larger inflow of imported capital goods and a higher investment rate, will then become more visible than during 1967-72, when the short-run benefits described above predominated. Compared with earlier

years, Colombia now has a more diversified base for capital formation. Its indirect sources of machinery and equipment, e.g., exports, as well as its own direct output of those goods, look sturdier than in, say, 1956. Hopefully, an exogenous shock, such as the 1957-58 one, will not come around to test such sturdiness. It may be added that a more general diversification in the Colombian productive structure, and thus a greater capacity to transform, makes policy tools potentially more effective in handling possible exogenous shocks, and in maintaining both balance of payments and macroeconomic equilibrium.

In discussing the links between trade policies and growth, this section has dealt exclusively with variations on the foreign-exchange gap model, and with short-medium-term macroeconomic management, an approach which some may find overly "Keynesian." While emphasizing the importance of these effects for the Colombian case, the author does not intend to deny the existence of possible links between trade policies and other dynamic effects influencing growth over the long run. But hard evidence on these matters is scanty. Leonard Dudley,[20] in a study of 25 import-substituting industries in the Colombian metal products sector during 1959-66, found important learning effects, explaining half of substantial productivity gains, particularly in casting, forging and stamping. Whether or not import substituting activities generate larger learning effects than exporting ones, however, is a moot point. Colombia offers anecdotal evidence showing that some forms (e.g., in textiles) are remarkably X-efficient and innovative whether they devote themselves to import-substitution or to exporting, as are

Germans with alternative socioeconomic systems. It will be recalled from Chapter VI that, as of 1971, major exporting firms still relied heavily on domestic sales. When the exporting experience becomes longer, and more differentiated from domestic sales, greater possibilities for exploring contrasts in behavior between exporting and import-substituting firms may become possible.

Trade Policies, Income Distribution and Employment

The use of one policy instrument, or a cluster of closely related ones, may bring a community closer to achieving several policy targets simultaneously. Such happy circumstances, however, are rare. In the recent upsurge of export optimism in Colombia, as well as in other developing countries, there has been a tendency to suppose that switching from policies emphasizing import substitution to those giving greater incentives to exports will not only promote efficiency and growth, but will also significantly improve income distribution and accelerate the growth of employment in modern (or "truly productive") activities. This supposition is usually based not just on the observation that important controls mechanisms associated with import substitution benefit disproportionally the powerful and rich, but also rests on appeals to a two-factor version of the Stolper-Samuelson theorem, featuring for developing countries plentiful labor and scarce capital, with or without downward wage rigidity. How much of an improvement in income distribution or employment one can expect from export-promoting policies, however, is usually not specified.

Earlier chapters have argued that Colombian import controls and the protective system in general do appear to have biases strengthening income inequality, regional disparities and industrial concentration. The protective system has also encouraged a large number of capital-intensive projects. Nevertheless, it should be emphasized that elimination of import controls would still leave a multitude of similar mechanisms through which the rich and powerful could take advantage of state power to buttress and further their position.[21] Imperfections in domestic capital markets, to give one fashionable example, loom as large a source of inequality as import controls. Thus, focusing just on the protective system can give a misleading impression of the true sources of inequality, confusing a sympton for the root of the disease.

Earlier chapters have also presented evidence on the characteristics of the new Colombian minor exports. Such limited data suggest that, at the very least, one would want to expand the usual two-by-two Hecksher-Ohlin trade model to a three-by-three one, to analyze the impact of trade policies on income distribution and employment. On the input side, land or natural resources must be added to labor and capital, while non-tradeable goods (or the subsistence sector) must be added to importables and exportables. In the expanded model, applications of the Stolper-Samuelson theorem will become more difficult and ad-hoc. But more fundamentally, it was seen earlier that the emerging trade pattern of Colombia cannot be explained only by a simple or expanded Heckscher-Ohlin model. Even leaving aside "unusual" trade flows probably induced by domestic policies, such as Colombian trade

with other members of the Latin American Free Trade Association (LAFTA), other trade theories, such as vent-for-surplus, the product cycle, and those emphasizing location, are helpful in explaining bits and pieces of Colombian foreign trade. The implications of those positive trade theories for functional income distribution, much less for family income distribution or for the income of the poorest half of the population, have not been explored systematically in the literature, either theoretically or empirically.

If a given export-expansion can be explained with a vent-for-surplus model, the name of the distributional game will be pure rents. Who gets them depends on who owns the rent-yielding assets. If such assets are relatively homogeneous and compact in location, they can be grouped under one label, "land," and a Heckscher-Ohlin model could be good enough to explore links between trade and distribution, as in the Argentine case. In Colombia, those assets are less homogeneous, ranging from sugar land in the Cauca Valley to mineral deposits scattered over the whole country. One crop or mineral may be a heavy user of labor inputs, but others may not, depending on the technological characteristics of the production functions of the different staples, and the socioeconomic conditions in the region. Nevertheless, the 1972/73 boom in dollar prices of minor rural exports has highlighted one Argentine-like way of viewing a mechanism linking greater openness of the economy with a worsening of income distribution: as those exportable goods bid up land prices, foodstuffs grown for domestic consumption, using somewhat similar land, also saw their prices rise, ahead of money wages in many cases.

For exports of manufactured products, the product cycle theory emphasizes whether a commodity is technologically new or old and standardized; whether it is labor- or capital-intensive is of secondary importance. The cement exported from the Colombian Atlantic coast, for example, is a standardized good, benefiting in that case also from location advantages; its capital-intensity is not a major barrier in competing in the Caribbean area. Flat glass is also exported from Medellin, in spite of both capital-intensity and location disadvantages.

A switch, speaking in relative terms, from import substitution to export promotion could improve income distribution in countries such as Colombia, or could worsen it. And the change attributable to trade policies could be quantitatively important, or negligible. No simple model could give us answers to these alternatives, and the detailed information needed for confident projections is not available. Much of the same can be said regarding the possible impact on employment, although there is reason to be more optimistic here, at least for the urban sector. While the link between trade policies and income distribution has much to do with the structure of the import-competing vs. that of the exporting sector, and relatively little with the overall growth rate, one may conjecture that the opposite is likely to be the case for urban employment. The impact of different growth rates on income distribution, ceteris paribus, is ambiguous, but is almost surely positive regarding urban employment. Even if one fears that import liberalization may destroy labor-intensive handicrafts, without compensating expansion in labor-intensive exports, a higher GNP growth rate made possible by the

relaxation of the foreign exchange bottleneck is likely to have a net positive impact on urban employment creation. Over the longer run, of course, this could feed back positively on income distribution. The picture for rural employment is more complex, and much depends on what incentives are generated for changes in land tenure, and on the robustness of the subsistence sector.

To clarify these uncertainties, one would like to have for marginal import-competing and exporting activities direct and indirect input requirements of such things as natural resources, unskilled and other labor, imported machinery and equipment, and other capital goods. Disaggregation of activities would clearly have to go beyond that in the available Colombian input-output table, which has one row and column for the whole rural sector. Hopefully, one would then be able to compare, for example, the direct and indirect factor use of refined sugar with that of "refined cotton," i.e., textiles, which now are excessively dichotomized as exports of primary products vs. exports of manufactures.

But even at the level of first round or direct effects, additional information, not found even in quite disaggregated input-output tables, appears necessary to predict factor use. As noted earlier, factor proportions in a given Colombian industry differ markedly by firm size. It thus becomes important to know whether large or small firms are carrying out marginal import-substitution or exporting. It is also relevant to investigate whether, as it seems likely on average, large firms have a larger participation in tradeable goods (both exportables and importables) than in the sector producing non-tradeable goods and services. Some idea of the variability

in factor use according to size of firm in the Colombian manufacturing sector is given in Table VIII-9, on the assumption that differences in average labor productivity reflect, at least partly, differences in factor use. This table indicates, for example, that the variation in the average productivity of firms employing between 50 and 100 persons, across the standard industrial classifications, is not so different from the variation in average labor productivity of firms producing paper and paper products, but having different size. The table also suggests how little information one gains about factor use from knowing that a given firm produces tobacco or rubber products, without specifying size of firm. How much of this variability is due to heterogenous output under the standard industrial classifications, and how much is due to differences in factor use in the production of "identical" goods is another moot point, given available data. Only finer disaggregation according both to output and size can settle that issue. Similar considerations could be made regarding the rural sector, for which Albert Berry has documented substantial differences in land productivity according to farm size.[22] Important distinctions in factor use exist especially between small subsistence farms, and large commercial ones.

During a transition period between policies emphasizing import substitution and those promoting exports, as 1967-72 undoubtedly was, most exporting firms also sold substantially, and predominantly, to the domestic market. As late as 1973, a group of large firms accounting for 42 percent of registered manufactured exports of that year, were reported to have sold 90.8 percent of their output in the domestic market.[23] As many of these firms have used

Table VIII-9

Value Added Per Employed Person in Colombian Manufacturing, 1967

	(a) Average (Thousand 1967 Pesos)	(b) Standard Deviation	(b) Divided by (a)	Number of Categories
According to size of firm:				
1- 14 persons	29.1	18.4	0.63	25
15- 19 persons	38.1	47.7	1.25	24
20- 49 persons	42.1	34.6	0.82	25
50- 99 persons	47.0	28.1	0.60	25
100-199 persons	64.6	48.5	0.75	25
200 and over persons	81.3	79.3	0.98	24
Totals for each industrial classification	63.0	58.6	0.93	25
According to industrial classification:				
Food	59.6	18.1	0.30	6
Beverages	94.8	58.4	0.62	6
Tobacco products	91.0	132.8	1.46	6
Textiles	32.5	8.6	0.26	6
Clothing and footwear	22.9	6.1	0.27	6
Printing and publishing	35.3	16.1	0.46	6
Pharmaceuticals & related products	68.9	33.1	0.48	6
Furniture and fixtures	19.6	6.1	0.31	6
Rubber products	75.6	88.7	1.17	6
Ceramic products	17.5	6.2	0.35	6
Non-electrical appliances	28.9	10.0	0.35	5
Electrical appliances	44.2	11.9	0.27	6
Motor vehicles	37.2	25.0	0.67	6
Wood and products	23.5	6.6	0.28	6
Paper and products	50.6	25.2	0.50	6
Leather and products	34.2	15.7	0.46	6
Chemicals other than pharmaceuticals	88.2	34.0	0.39	6
Petroleum and coal products	158.7	98.7	0.62	5
Non-metallic mineral products	31.2	15.8	0.51	6
Basic metal products	77.2	22.5	0.29	6
Metal products	33.7	13.4	0.40	6
Mechanical machinery	30.6	6.1	0.20	6
Electrical machinery, except appliances	43.6	20.6	0.47	6
Transport equipment	30.3	8.1	0.27	6
Other	40.8	11.6	0.28	6
Total manufacturing according to firm size	46.3	20.1	0.43	6

Sources and method: Basic data obtained from International Bank for Reconstruction and Development, Economic Growth of Colombia: Problems and Prospects, November 1, 1970, Volume IV, Appendix 1, Table 11. It should be noted that the averages shown for each firm size category or industrial classification category are the unweighted averages obtained from the relevant subgroups, which already involve some averaging. Thus, they can be expected to differ from the (more exact) averages shown in Table VIII-3.

underutilized capacity to produce exports, a given export expansion may have a widely varying first-round impact on factor use depending on whether one deals with the short or the long run, and on assumptions about firm behavior. Putting to use excess installed capacity for sales abroad could involve a marginal capital use per unit of output much lower in the short than in the long run. As the export drive becomes consolidated, and contrary to what is likely to happen in import substitution, new smaller firms may plunge into exporting, once the larger firms have shown that Colombian output can compete internationally, and establish exporting infrastructure. Or smaller firms may become associated with larger exporting firms in increasing numbers as subcontractors (an evolution which has also occurred in the import competing sector). In short, the factor use observed during the early stages for an export drive may be significantly different from that observed at more mature stages of export expansion, in a pattern different from that observed during import substitution.

The calculation of indirect effects on factor demands, and other general equilibrium effects, are also difficult to trace out with accuracy. The complementary or indirect services required by different types of export and import substituting activities could vary substantially. For example, the export of a staple like coal will need complementary capital-intensive services, such as transportation by railroads or trucks to take the stuff to harbors, quite different from the needs of carnation exports, or those generated in duty-free zones.

It was noted in Chapter I that Berry and Urrutia have shown that as of mid-1960s the distribution of Colombian personal income was highly unequal;

in their calculations for 1964, the Gini coefficient was 0.57.[24] They find that a period of worsening distribution began in the 1930s and continued until around the mid-1950s, not only overall, but in both urban and rural sectors. From the mid-1950s until the mid-1960s, the evidence they examined suggests an improvement in urban distribution, a continued worsening of the distribution in agriculture, with a moderate overall improvement. They add that there is some tentative evidence that the latest episode of fast growth, between 1967 and 1973, may have been characterized by a deterioration in the position of the urban employed workers at least. Some of this effect may have been compensated by a decrease in unemployment, however. They conclude that the challenge now facing Colombia is how to avoid in the future an increase in inequality as economic growth accelerates.

Changes in the labor share in GDP provide a crude, but available, index of changes in income distribution. It may be seen in Table VIII-10 that 1971-72, by which time the post-1967 policies had become well established, witnessed either an end or a reversal of the upward trend in the manufacturing and overall wage shares which had started after 1955-58. The plunge in the rural wage share suggests that new commercial crops use less labor than the old staple, coffee, and than the subsistence sector. By 1972, the wage share was 26.5 percent in agriculture and livestock, 40.2 percent in manufacturing and 39.4 percent for the whole GDP.

Scattered evidence[25] suggests that open unemployment rates in the four largest Colombian cities peaked in 1967, and have been declining ever since. As in other developing countries, however, the openly unemployed in

Table VIII-10

Labor Share in GDP
(Percentages)

	Agriculture and Livestock	Manufacturing	Construction	Commerce	Transport	GDP
1950-54	35.9	29.2	73.5	18.3	36.4	35.9
1955-58	31.3	33.5	71.9	18.3	36.9	35.7
1959-62	32.1	35.6	71.8	18.6	44.0	37.4
1963-66	33.2	37.6	74.4	18.3	47.8	39.3
1967-70	30.9	40.2	79.4	21.0	45.3	40.4
1971-72	27.6	40.7	77.3	17.1	47.0	40.1

Sources and method: National accounts of the BdlR. Percentages were computed using data at current prices and measured at factor cost.

Colombia are typically young people, non-heads of families and others who can afford to be openly employed. Those at the bottom of the income scale usually have some kind of employment, and there is no evidence on whether demand for their services has expanded substantially since 1967.

Both a priori considerations and available post-1967 evidence cast doubt as to whether further import liberalization, by itself, will significantly alter Colombian income distribution and employment patterns. It is particularly doubtful that further import liberalization would do much for or against the bottom half of the income scale, say, during the next ten years or so. Indeed, it is conceivable that further encouragement of modern mechanized rural activities oriented toward foreign markets could further damage the possibilities of landless farmers and minifundistas for obtaining family-sized farms. It should be recalled that still about 45 percent of the Colombian active population is engaged in rural activities, and that a good share of the poorest part of the nation is to be found there. Unless other policies are adopted, the encouragement of commercial outward-oriented farming could worsen land and income distribution in the countryside, and by absorbing parts of the subsistence sector, it could actually generate disguised rural or urban unemployment. It would not be the first time in history that such a thing happens.

Trade and Financial Policies, and the Degree of National Autonomy

While income distribution and employment data are scarce, at least the concepts involved are, in principle, quantifiable. "National autonomy" is

a vaguer concept, but of no lesser importance for those responsible for framing international trade and financial policies in Colombia (and elsewhere). As measured by the proportion of imports of goods and services in GDP, the openness of the Colombian economy rose from 13.0 percent during 1963-66, to 14.0 percent during 1967-70 and to 15.6 percent in 1971-72.[26] Has this trend been accompanied by a significant change in the degree of control of Colombians over their own economy? What will be the impact of further liberalization and openness on such control?

The post-1967 expansion of exports has been characterized not only by a remarkable diversification in the goods exported, but also by a continuation of diversification of geographical trade partners, also noticed for imports. The extent of the geographical diversification may be seen in Tables III-8 and IV-10. It was also noted earlier, in Chapters II and VI, that the participation of foreign-owned enterprises in minor exports, while important, particularly for manufactured products, is less than that of domestic firms. It would indeed be dangerous for the political viability of export promotion if the production or merchandising of new exports fell predominantly under the control of foreign enterprise. Dissatisfaction with protectionist policies was boosted as a greater share of firms in the cutting edge of import substitution turned out to be foreign owned.

Vulnerability to external cycles and pressures has been reduced not only by geographical and product diversification, but also by the establishment of preferential arrangements with countries at a similar stage of development. The Andean common market may be viewed partly as insurance against a collapse of world markets; if such an event occurs, import substitution

at the Andean level could go into high gear to offset the collapse of export drives. Had Latin America had such arrangements in 1929, the industrialization of the 1930s and 1940s would have been faster and more efficient.

Trade is only one aspect of Colombian links with the international economy, and trade liberalization will typically be accompanied with larger flows, in and out, of capital and special services, such as technology. A case can be made that international markets for technology and capital are less diversified and competitive than those for most goods, thus posing a potential threat to the autonomy of countries relying too heavily on them without defensive mechanisms. Such mechanisms, of course, can also be used to obtain better bargains. For these reasons, it seems wise for Colombia to retain present controls and registration procedures for transfer of technology and capital flows, particularly direct foreign investments, even as it moves to eliminate import controls. In some cases, the greater competitive pressures put on import competing firms, many of them foreign owned, by the elimination of import controls, plus realistic exchange rates, will reduce the importance of keeping detailed tabs on such matters as overinvoicing of imported inputs and fake royalty payments abroad. This should allow a greater efficiency of controls over transactions involving monopoly power originating abroad, rather than wasting effort dealing with monopoly power created by misguided domestic protectionism.

Both capital and technological inflows raise the possibility that excessive reliance on foreigners will weaken local efforts, and reduce the capability of Colombia for long run autonomous development. The flabby performance of recent Colombian private and public savings, at a time of fast growth and

substantial capital inflow, documented earlier in this chapter, shows that such a preoccupation is not misplaced, even if it is difficult to say much more on the subject, for a single country.

More, however, can be said on different types of capital flows. Non-concessional long term capital is now available to Colombia mainly in two forms: as direct foreign investment (DFI), and as sales abroad of Colombian debt. The former type, as is well known, comes as a package of technology, management, marketing and capital; often the last component is small, and the first a doubtful substantive contribution. The same Decree-Law 444 of 1967, which set up the framework for a crawling peg and export promotion, established firm controls over DFI, later reflected in the celebrated Resolution 24 of the Andean group. The hysterics of the international financial press notwithstanding, DFI has continued flowing into Colombia. Indeed, and somewhat disappointingly, the allocation pattern of such investment since 1967 has not been very different from that before. It may be seen in Table VIII-11 that chemicals, refineries, rubber and plastics, heavily oriented toward import substitution, have continued attracting about one-third of DFI. The same source given in that table indicates little change in the geographical source of DFI; the United States still accounts for about half, with the shares for Switzerland, France, Japan and the Federal Republic of Germany showing an increase after 1967.[27]

As with other semi-industrialized and/or resource-rich developing countries, Colombia has discovered during the early 1970s that it could obtain substantial sums from "arms-length" world capital markets. During 1973, for

Table VIII-11

Accumulated Direct Foreign Investment in Colombia
(Percentages of total)

	Before January 1, 1967	January 1, 1967 through December 31, 1972
Foodstuffs, beverages and tobacco	6.8	3.7
Textiles, clothing and leather products	4.0	3.8
Wood products and furniture	0.3	4.1
Paper, printing and publishing	8.9	2.7
Chemicals, refineries, rubber and plastics	31.8	33.3
Non-metallic minerals	5.1	2.6
Basic metals	1.6	1.2
Metallic products, machinery and equipment	11.3	12.7
Other manufacturing	0.6	0.4
All manufacturing	70.3	64.4
Finance, insurance, real estate and related services	11.4	24.4
Commerce, hotels and restaurants	11.4	6.5
Mining (except petroleum)	2.7	1.4
Transport and communications	2.4	0.8
Agriculture, livestock and fishing	0.9	0.9
All other	0.8	1.6
Total	100.0	100.0
Total value, million U.S. $	$429.1	$111.0

Sources and method: BdlR, Informe..., 1972, page 122. Data refer to the registered and accumulated value of investments, except those in petroleum. Registered value underestimates the value of assets owned and controlled by foreign investors.

example, Colombia was reported to have borrowed $170 million in the euro-currency market.[28] This source of funds, although expensive, provides a healthy alternative to both DFI and the more traditional forms of borrowing from multilateral intermediaries, such as the IBRD and the IADB, as well as to concessional bilateral finance. Borrowing from the euro-currency market, as well as from other foreign capital markets, carries costs and risks not associated with borrowing from the IBRD and the IADB, but also involves less sacrifice of national control over investment decisions. As any form of foreign borrowing, of course, it bears careful control, both at the level of individual loans and as to aggregates.

As measured by the traditional indicator, e.g., service payments on the whole external public debt as a percentage of exports of goods and non-factor services, the Colombian debt burden remains moderate. It stood at 15.5 percent in 1965-66, at 12.8 percent in 1967-70, and at 13.8 percent in 1971.[29] So long as minor exports maintain their dynamism, the Colombian capacity to borrow in private markets looks quite good, potentially strengthening the position of the country vis-à-vis multilateral intermediaries and bilateral donors (if any).

On the whole, it is doubtful that the gradual post-1967 liberalization trend has substantially changed Colombia's capacity for autonomous decision-making; on balance, the net change seems to be, if anything, toward greater effective national control over the domestic economy. Aided also by trends in the world economy, policy makers are able to consider more options than they could realistically face, say, around 1965. On the other hand, the

greater openness of the economy demands a more careful coordination of different policy tools, such as monetary, fiscal and exchange rate policies, than was necessary when both Colombia and the Atlantic world had less complex and interrelated economies, as during the 1950s.

Some Final Remarks

The gradualist trade and payments policies followed since 1967 have impressive achievements to their credit. By placing balance of payments management on a routine basis, they have permitted a more efficient and faster overall growth rate, which appeared out of reach during 1957-66. A remarkable expansion of exports, aided by a booming world economy has confounded export pessimists. The relaxation of the foreign exchange bottleneck, and the removal of periodic exchange crises from the front pages, have given policy makers the option of turning their attention to the really serious problems in the Colombian economy, e.g., poverty, underemployment, income distribution and national autonomy, areas in which the impact of trade and payments policies is indirect and weak, or even negative.

Further import liberalization, beyond the stage reached in mid-1974, and a tidying-up of the export promotion system could, if properly managed, consolidate and slightly expand the post-1967 gains in efficiency and growth. Other reforms, however, are likely to have now a larger pay off, particularly in the area of income distribution; those would include a profound tax reform, including stiffer land taxes, expansion of public expenditures in education and health, and a liberalization of the domestic capital market, either by giving a greater role to market-influenced interest rates or by

"as-if" lending and borrowing policies of a nationalized banking and financial system. The relaxation of the foreign exchange constraint has focused attention once again on the need to expand local, private and public savings if the overall growth rate is to be increased, or even maintained, as the marginal capital output ratio registered in recent years is unlikely to persist. A less distorted internal capital market may help somewhat in this area.

While avoidable balance of payments crises have not distracted policy makers in recent years, a similar "red herring" has re-emerged, especially during 1973 and 1974. It appears that during these years overly expansionary fiscal and monetary policies, including financial reforms boosting construction, led to an overheating of the economy which, coupled with exogenous increases in the world dollar price level, resulted in inflation rates not seen in Colombia for several years. Such inflation has, inter alia, endangered the crawling peg policy, undertaken since 1967 amidst declining inflationary rates. The policy maker, in particular the new reformist administration inaugurated August 1974, is forced to give first priority to a macroeconomic management problem without positive long run structural effects, but which if left unattended could have severe negative consequences.

In retrospect, the Colombian experience vindicates the case for gradualism in import liberalization, which went pari passu with export expansion. It was not necessary to dismantle the protective system before that export expansion could be generated. The wisdom of avoiding shock treatments while keeping control over macroeconomic management policies remains relevant for anti-inflationary policies.

Footnotes to Chapter VIII

[1]These growth or decline rates refer to those obtained by fitting trend lines, as in Tables I-1 and I-2.

[2]Table I-2 shows GDP growth rates only for 1950 through 1956 and for 1967 through 1972. Preliminary statistics indicate a GDP growth rate of 7.0 percent for 1973. See Coyuntura Económica, Volume IV, No. 1, April 1974, p. 5. UNECLA estimates place the GDP annual growth rate at 5.2 percent during 1945-50, and at 4.2 percent for just 1947-50. The UNECLA estimates can be found in DANE-BMdE, No. 226, 1970.

[3]See Richard Caves, "Export-led Growth and the New Economic History," in J.N. Bhagwati, et al, editors, Trade, Balance of Payments and Growth, In Honor of Charles P. Kindleberger, Amsterdam, North-Holland, 1971, especially pp. 419-38.

[4]Thomas L. Hutcheson, "Incentives for Industrialization in Colombia," Ph.D. dissertation, Department of Economics, University of Michigan, 1973.

[5]Thomas L. Hutcheson, op. cit., Appendix B, pp. 147-148.

[6]These and other case studies are reported in Daniel Vargas and Eduardo Wiesner, "Las exportaciones y el empleo; Una perspectiva para Colombia," FEDESARROLLO, Bogotá, November 1971. There is little mystery in these domestic resource cost results: one typically starts with labor-intensive exports selling at world prices, and compares them with heavily protected activities whose output sell domestically at prices twice or more those in world markets. The further contribution made to the gap in domestic resource

costs by cost structure differences and guesses about shadow input prices is quite small.

[7]See Francisco E. Thoumi, "Evolución de la Industria Manufacturera Fabril 1958-1967," DANE-BIdE, No. 236, March 1971, p. 60.

[8]David Morawitz, "Import Substitution, Employment and Foreign Exchange in Colombia: No Cheers for Petrochemicals," mimeographed, September 1972. Morawitz adds: "In Colombia petrochemicals received more government finance and support than any other industrial sector in the 1960s. For example, in 1969 chemicals and petrochemicals participated 40 percent in the portfolio of the largest government industrial development agency (IFI) and received 25 percent of all credits and refinancings granted by the government's Private Investment Fund (FIP), in spite of the fact that it generated only 8 percent of industrial production and employment." (p. 1).

[9]For an early analysis of this industry see Bernard E. Munk, "The Colombian Automotive Industry: The Welfare Consequences of Import Substitution," mimeographed, August 1968. That paper was pessimistic regarding cost reductions in this industry even assuming Andean integration.

[10]Speculative holdings of importable-goods inventories were emphasized by Alberto Roque Musalem, but from a balance of payments and macroeconomic perspective. See his Dinero, Inflación y Balanza de Pagos: La Experiencia de Colombia en la Post-Guerra, Banco de la República, Bogotá, 1971, particularly Chapter I.

[11]See Francisco E. Thoumi, "The Utilization of Fixed Industrial Capital in Colombia: Some Empirical Findings," mimeographed, December 1973.

[12]See my "The Andean Common Market: Gestation and Outlook," in R. S. Eckaus and P. N. Rosenstein-Rodan, Editors, Analysis of Development Problems; Studies of the Chilean Economy, North-Holland/American Elsevier, 1973, pp. 293-326. See also David Morawitz, "Economic Integration Among Less Developed Countries with Special Reference to the Andean Group," Ph.D. thesis, Massachusetts Institute of Technology, Cambridge, 1972.

[13]Current tax revenues of the national government expressed as a percentage of GDP, which reached 9.8 percent in 1970, fell to approximately 9.0 percent by 1973, contributing to an impressive fiscal deficit, and a deteriorating, inflationary situation during 1973 and 1974. See Coyuntura Económica, Volume IV, No. 1, April 1974, p. 124 and pp. 133-134.

[14]In a somewhat bizarre move, the U.S. Treasury during 1974 charged Colombia with "dumping" carnations in the U.S. market, giving as evidence the CAT received by those exporters. It will be recalled that the CAT has been in effect since 1967; its creation was widely celebrated by U.S. AID officials.

[15]Such a base was taken in my "The Andean Common Market: Gestation and Outlook," op. cit., p. 326.

[16]National accounting procedures may overemphasize somewhat the link between the real import exchange rate and the relative prices of machinery and equipment by neglecting to fully account for changes in import premia

at times of balance of payments turbulence. Changes in import duties on capital goods, however, have been small. It will also be recalled that major industrial corporations import directly their machinery and equipment.

[17]See my Essays on the Economic History of the Argentine Republic, Yale University Press, New Haven, 1970, especially Essay 6. For a long time, Argentine national accounts expressed at constant prices used 1950 as their base year. That year witnessed a peak in the Argentine relative prices of all investment goods, as 1958 did for Colombian ones. Researchers using Argentine and Colombian constant price data for cross-country comparisons have therefore frequently marveled at the high investment coefficients and extraordinary marginal capital-output ratios of those countries. Contrary to the Argentine experience, Colombian implicit prices for the two major commodity-producing sectors have evolved relatively undramatically, relative to the GNP deflator, as follows (1958=100):

	Agriculture and Livestock	Manufacturing
1950-54	99.0	109.3
1955-56	104.3	103.5
1957-58	102.7	101.0
1959-62	96.2	103.6
1963-66	96.9	106.0
1967-70	94.3	97.6
1971-72	95.5	97.2

[18]Some model-builders have speculated regarding such an elasticity. See W.M. Corden, "The Effects of Trade on the Rate of Growth," in

J.N. Bhagwati, et al, editors, Trade, Balance of Payments and Growth, Honor of Charles P. Kindleberger, North-Hollard Publishing Company, Amsterdam, 1971, Chapter 6, especially pp. 126-131.

[19]It is doubtful whether without the rise in minor and coffee exports Colombia could have expanded its foreign debt and attracted other types of capital to the extent realized since 1967.

[20]Leonard Dudley, "The Effects of Learning on Employment and Productivity in the Colombian Metal Products Sector," mimeographed, September 1973.

[21]That statement, of course, stands whether the country is developed or underdeveloped. Without the presence of import controls (but with that of milk subsidies!), the 1973-74 Watergate matter in the United States showed the many channels through which private interests can manipulate state power. The Matessa scandal in Spain was in fact related to export-promotion schemes.

[22]See R. Albert Berry, "Land Distribution, Income Distribution and Productivity," Chapter IV of a forthcoming book on the Colombian rural sector.

[23]See FEDESARROLLO, Encuesta Industrial, June 1974, pp. 7-8. In 1972 these firms had sold 92.7 percent of their output domestically.

[24]R. Albert Berry and Miguel Urrutia, Income Distribution in Colombia, mimeographed, Chapter 12.

[25]Here I follow (again!) unpublished estimates of R. Albert Berry, as well as FEDESARROLLO, Coyuntura Económica, several issues.

[26]Both imports of goods and services and GDP (at market prices) are measured at current prices. The percentages will thus reflect changes in the relation between the average import exchange rate and the GDP deflator. For earlier years, the corresponding figures are as follows:

1950-54:	12.9%
1955-56:	13.5
1957-58:	14.8
1959-62:	14.3

[27]A good share of the registered DFI gives as its home base countries such as Panama, Curaçao, Bahamas, Luxembourg and Liechtenstein, making further precision as to geographical origins spurious.

[28]See IMF Survey, June 3, 1974, p. 165.

[29]As reported in World Bank/IDA, Annual Report, 1973, pp. 88-89. The corresponding 1971 percentages were 21.1 for Argentina, 17.1 for Brazil and 24.7 for Mexico.